

PA-Score

PA SCORESHEETS

Site Name: U.S. BRONZE POWDERS
CERCLIS ID No.: D002344190
Street Address: ROUTE 202N
City/State/Zip: RARITAN TOWNSHIP, NJ 08822

Investigator: DONNA J. VAN VELDHUISEN
Agency/Organization: NJDEPE/DRPSR/BSA
Street Address: 300 HORIZON CENTER
City/State: ROBBINSVILLE, NJ

Date: 10-23-91



OMB Approval Number: 2050-0095
Approved for Use Through: 1/92

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT FORM				IDENTIFICATION		
				State: NJ	CERCLIS Number: D002344190	
				CERCLIS Discovery Date:		
1. General Site Information						
Name: U.S. BRONZE POWDERS			Street Address: ROUTE 202N			
City: RARITAN TOWNSHIP	State: NJ	Zip Code: 08822	County: HUNTERDON	Co. Code: 10	Cong. Dist: 13	
Latitude: 40° 30' 21.0"		Longitude: 74° 54' 33.0"	Approx. Area of Site: 22 acres		Status of Site: Active	
2. Owner/Operator Information						
Owner: U.S. BRONZE POWDERS			Operator: U.S. BRONZE POWDERS			
Street Address: ROUTE 202N			Street Address: ROUTE 202N			
City: RARITAN TOWNSHIP			City: RARITAN TOWNSHIP			
State: NJ	Zip Code: 08822	Telephone: 908-782-5454	State: NJ	Zip Code: 08822	Telephone: 908-782-5454	
Type of Ownership: Private			How Initially Identified: State/Local Program			

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT FORM		IDENTIFICATION	
		State: NJ	CERCLIS Number: D002344190
		CERCLIS Discovery Date:	
3. Site Evaluator Information			
Name of Evaluator: DONNA J. VAN VELDHUISEN		Agency/Organization: NJDEPE/DRPSR/BSA	Date Prepared: 10-23-91
Street Address: 300 HORIZON CENTER		City: ROBBINSVILLE	State: NJ
Name of EPA or State Agency Contact: KENNETH J. KLOO		Telephone: 609-584-4280	
Street Address: 300 HORIZON CENTER		City: ROBBINSVILLE	State: NJ
4. Site Disposition (for EPA use only)			
Emergency Response/Removal Assessment Recommendation: No	CERCLIS Recommendation: Lower Priority SI	Signature:	
Date:	Date: 9/25/91	Name: DONNA VAN VELDHUISEN	
		Position: HSMS II	

<p>POTENTIAL HAZARDOUS</p> <p>WASTE SITE</p> <p>PRELIMINARY ASSESSMENT FORM</p>	IDENTIFICATION	
	State: NJ	CERCLIS Number: D002344190
	CERCLIS Discovery Date:	

5. General Site Characteristics

<p>Predominant Land Uses Within 1 Mile of Site:</p> <p>Commercial</p> <p>Residential</p> <p>Agricultural</p>	<p>Site Setting:</p> <p>Suburban</p>	<p>Years of Operation:</p> <p>Beginning Year: 1957</p> <p>Ending Year: 1991</p>
<p>Type of Site Operations:</p> <p>Manufacturing</p> <p>Primary Metals</p> <p>Metal Coatings, Plating, Engraving</p>	<p>Waste Generated:</p> <p>Onsite</p>	
	<p>Waste Deposition Authorized By: Present Owner</p>	
	<p>Waste Accessible to the Public</p> <p>No</p>	
	<p>Distance to Nearest Dwelling, School, or Workplace:</p> <p>400 Feet</p>	

6. Waste Characteristics Information

<p>Source Type</p> <p>Non-drum containers 2.10e+04 gals</p> <p>Non-drum containers 8.75e+02 gals</p> <p>Drums 1.00e+01 drums</p>	<p>Quantity</p> <p>2.10e+04 gals</p> <p>8.75e+02 gals</p> <p>1.00e+01 drums</p>	<p>Tier</p> <p>V</p> <p>V</p> <p>V</p>	<p>General Types of Waste:</p> <p>Metals</p> <p>Solvents</p> <p>Oily Waste</p>
<p>Tier Legend</p> <p>C = Constituent W = Wastestream</p> <p>V = Volume A = Area</p>			<p>Physical State of Waste as Deposited</p> <p>Liquid</p> <p>Powder</p>

<p>POTENTIAL HAZARDOUS</p> <p>WASTE SITE</p> <p>PRELIMINARY ASSESSMENT FORM</p>	IDENTIFICATION	
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	CERCLIS Discovery Date:	

7. Ground Water Pathway

<p>Is Ground Water Used for Drinking Water Within 4 Miles:</p> <p>Yes</p>	<p>Is There a Suspected Release to Ground Water:</p> <p>Yes</p>	<p>List Secondary Target Population Served by Ground Water Withdrawn From:</p>
<p>Type of Ground Water Wells Within 4 Miles:</p> <p>Municipal Private</p>	<p>Have Primary Target Drinking Water Wells Been Identified: Yes</p>	<p>0 - 1/4 Mile 0</p>
<p>Depth to Shallowest Aquifer:</p> <p>50 Feet</p>	<p>Primary Target Population: 3</p>	<p>>1/4 - 1/2 Mile 212</p>
<p>Karst Terrain/Aquifer Present:</p> <p>No</p>	<p>Nearest Designated Wellhead Protection Area:</p> <p>None within 4 Miles</p>	<p>>1/2 - 1 Mile 3120</p>
		<p>>1 - 2 Miles 5645</p>
		<p>>2 - 3 Miles 5769</p>
		<p>>3 - 4 Miles 10576</p>
		<p>Total 25322</p>

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT FORM	IDENTIFICATION	
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	CERCLIS Discovery Date:	

8. Surface Water Pathway		Part 1 of 4
Type of Surface Water Draining Site and 15 Miles Downstream: Stream River Lake	Shortest Overland Distance From Any Source to Surface Water: 50 Feet 0.0 Miles	
Is there a Suspected Release to Surface Water: Yes	Site is Located in: > 500 yr floodplain	

8. Surface Water Pathway		Part 2 of 4
Drinking Water Intakes Along the Surface Water Migration Path: No		
Have Primary Target Drinking Water Intakes Been Identified: No		
Secondary Target Drinking Water Intakes: None		

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT FORM	IDENTIFICATION	
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8. Surface Water Pathway

Part 3 of 4

Fisheries Located Along the Surface Water Migration Path: Yes

Have Primary Target Fisheries Been Identified: No

Secondary Target Fisheries:

Fishery Name	Water Body Type/Flow(cfs)
BUSHKILL BROOK	small-moderate stream/ 10-100
SO. BRANCH RARITAN R	large stream/river/ >1000-10000
RARITAN RIVER	large stream/river/ >1000-10000

8. Surface Water Pathway

Part 4 of 4

Wetlands Located Along the Surface Water Migration Path? (y/n) Yes

Have Primary Target Wetlands Been Identified? (y/n) No

Secondary Target Wetlands:

Water Body/Flow(cfs)	Frontage(mi)
large stream/river/ >1000-10000	>16 to 20

Other Sensitive Environments Along the Surface Water Migration Path: No

Have Primary Target Sensitive Environments Been Identified: No

Secondary Target Sensitive Environments:

None

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	CERCLIS Discovery Date:	

9. Soil Exposure Pathway

Are People Occupying Residences or
Attending School or Daycare on or
Within 200 Feet of Areas of Known
or Suspected Contamination: Yes
Total Resident Population: 3

Number of Workers Onsite: 1 - 100

Have Terrestrial Sensitive Environments Been Identified on or Within
200 Feet of Areas of Known or Suspected Contamination: No

10. Air Pathway

Total Population on or Within:	
Onsite	0
0 - 1/4 Mile	35
>1/4 - 1/2 Mile	312
>1/2 - 1 Mile	2574
>1 - 2 Miles	6562
>2 - 3 Miles	5169
>3 - 4 Miles	10576
Total	25228

Is There a Suspected Release to Air: Yes

Wetlands Located
Within 4 Miles of the Site: No

Other Sensitive Environments Located
Within 4 Miles of the Site: No

Sensitive Environments Within 1/2 Mile of the Site:
None

WASTE CHARACTERISTICS

Waste Characteristics (WC) Calculations:

1 4 USTS	Non-drum containers	WQ value	maximum
Volume	2.10E+04 gals	4.20E+01	4.20E+01
2 3 AGSTS	Non-drum containers	WQ value	maximum
Volume	8.75E+02 gals	1.75E+00	1.75E+00
3 DRUMS	Drums	WQ value	maximum
Volume	1.00E+01 drums	1.00E+00	1.00E+00

WQ total 4.48E+01

Waste Characteristics Score: WC = 18

Ground Water Pathway Criteria List
Suspected Release

Are sources poorly contained? (y/n/u)	Y
Is the source a type likely to contribute to ground water contamination (e.g., wet lagoon)? (y/n/u)	Y
Is waste quantity particularly large? (y/n/u)	N
Is precipitation heavy? (y/n/u)	N
Is the infiltration rate high? (y/n/u)	N
Is the site located in an area of karst terrain? (y/n)	N
Is the subsurface highly permeable or conductive? (y/n/u)	N
Is drinking water drawn from a shallow aquifer? (y/n/u)	N
Are suspected contaminants highly mobile in ground water? (y/n/u)	N
Does analytical or circumstantial evidence suggest ground water contamination? (y/n/u)	Y

Other criteria? (y/n) N

SUSPECTED RELEASE? (y/n) Y

Summarize the rationale for Suspected Release:

SAMPLING OF THE ON-SITE MONITORING WELLS HAS INDICATED GROUNDWATER
CONTAMINATION.

Ground Water Pathway Criteria List
Primary Targets

Is any drinking water well nearby? (y/n/u)	Y
Has any nearby drinking water well been closed? (y/n/u)	N
Has any nearby drinking water well user reported foul-testing or foul-smelling water? (y/n/u)	U
Does any nearby well have a large drawdown/high production rate? (y/n/u)	N
Is any drinking water well located between the site and other wells that are suspected to be exposed to a hazardous substance? (y/n/u)	N
Does analytical or circumstantial evidence suggest contamination at a drinking water well? (y/n/u)	Y
Does any drinking water well warrant sampling? (y/n/u)	Y
Other criteria? (y/n)	N

PRIMARY TARGET(S) IDENTIFIED? (y/n) Y

Summarize the rationale for Primary Targets:

A DRINKING WATER WELL IS LOCATED AT THE FARMHOUSE APPROXIMATELY 400
FEET FROM THE SITE. THE HOUSE IS DOWNSLOPE FROM THE SITE.

GROUND WATER PATHWAY SCORESHEETS

Pathway Characteristics

Do you suspect a release? (y/n)			Yes	Ref.
Is the site located in karst terrain? (y/n)			No	
Depth to aquifer (feet):			50	
Distance to the nearest drinking water well (feet):			400	
LIKELIHOOD OF RELEASE	Suspected Release	No Suspected Release	References	
1. SUSPECTED RELEASE	550			
2. NO SUSPECTED RELEASE		0		
LR =	550	0		

Targets

TARGETS	Suspected Release	No Suspected Release	References
3. PRIMARY TARGET POPULATION 3 person(s)	30		
4. SECONDARY TARGET POPULATION Are any wells part of a blended system? (y/n) Y	470	0	
5. NEAREST WELL	50	0	
6. WELLHEAD PROTECTION AREA None within 4 Miles	0	0	
7. RESOURCES	5	0	
T =	555	0	

WASTE CHARACTERISTICS

WC =

32	0
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GROUND WATER PATHWAY SCORE:

100

PA-Score 1.0 Scoresheets
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Ground Water Target Populations

Primary Target Population Drinking Water Well ID	Dist. (miles)	Population Served	Reference	Value
1 FARMHOUSE	0.08	3		30
Total				30

Secondary Target Population Distance Categories	Population Served	Reference	Value
0 to 1/4 mile	0		0
Greater than 1/4 to 1/2 mile	212		10
Greater than 1/2 to 1 mile	3120		167
Greater than 1 to 2 miles	5645		94
Greater than 2 to 3 miles	5769		68
Greater than 3 to 4 miles	10576		131
Total			470

Apportionment Documentation for a Blended System

FLEMINGTON BOROUGH HAS TWO WELLS 0.8 MILE FROM THE SITE AND TWO WELLS 1 TO 2 MILES FROM THE SITE. THE BOROUGH SERVES APPROXIMATELY 4240 PEOPLE.

Surface Water Pathway Criteria List
Suspected Release

Is surface water nearby? (y/n/u)	Y
Is waste quantity particularly large? (y/n/u)	N
Is the drainage area large? (y/n/u)	Y
Is rainfall heavy? (y/n/u)	N
Is the infiltration rate low? (y/n/u)	Y
Are sources poorly contained or prone to runoff or flooding? (y/n/u)	Y
Is a runoff route well defined(e.g.ditch/channel to surf.water)? (y/n/u)	Y
Is vegetation stressed along the probable runoff path? (y/n/u)	Y
Are sediments or water unnaturally discolored? (y/n/u)	N
Is wildlife unnaturally absent? (y/n/u)	N
Has deposition of waste into surface water been observed? (y/n/u)	Y
Is ground water discharge to surface water likely? (y/n/u)	N
Does analytical/circumstantial evidence suggest S.W. contam? (y/n/u)	Y

Other criteria? (y/n) N

SUSPECTED RELEASE? (y/n) Y

Summarize the rationale for Suspected Release:

THE UNNAMED TRIBUTARY WHICH IS ADJACENT AND DOWNSLOPE OF THE SITE
HAS BEEN FOUND TO HAVE SEDIMENT CONTAMINATION WITH COPPER.

Surface Water Pathway Criteria List
Primary Targets

Is any target nearby? (y/n/u) If yes: N
 N Drinking water intake
 N Fishery
 N Sensitive environment

Has any intake, fishery, or recreational area been closed? (y/n/u) N

Does analytical or circumstantial evidence suggest surface water
 contamination at or downstream of a target? (y/n/u) N

Does any target warrant sampling? (y/n/u) If yes: N
 N Drinking water intake
 N Fishery
 N Sensitive environment

Other criteria? (y/n) N

PRIMARY INTAKE(S) IDENTIFIED? (y/n) N

Summarize the rationale for Primary Intakes:

continued -----

continued -----

Other criteria? (y/n) N

PRIMARY FISHERY(IES) IDENTIFIED? (y/n) N

Summarize the rationale for Primary Fisheries:

Other criteria? (y/n) N

PRIMARY SENSITIVE ENVIRONMENT(S) IDENTIFIED? (y/n) N

Summarize the rationale for Primary Sensitive Environments:

SURFACE WATER PATHWAY SCORESHEETS

Pathway Characteristics

Do you suspect a release? (y/n)			Yes	Ref.
Distance to surface water (feet):			50	
Flood frequency (years):			>500	
What is the downstream distance (miles) to:				
a. the nearest drinking water intake?			N.A.	
b. the nearest fishery?			1.0	
c. the nearest sensitive environment?			1.4	
LIKELIHOOD OF RELEASE	Suspected Release	No Suspected Release	References	
1. SUSPECTED RELEASE	550			
2. NO SUSPECTED RELEASE		0		
LR =	550	0		

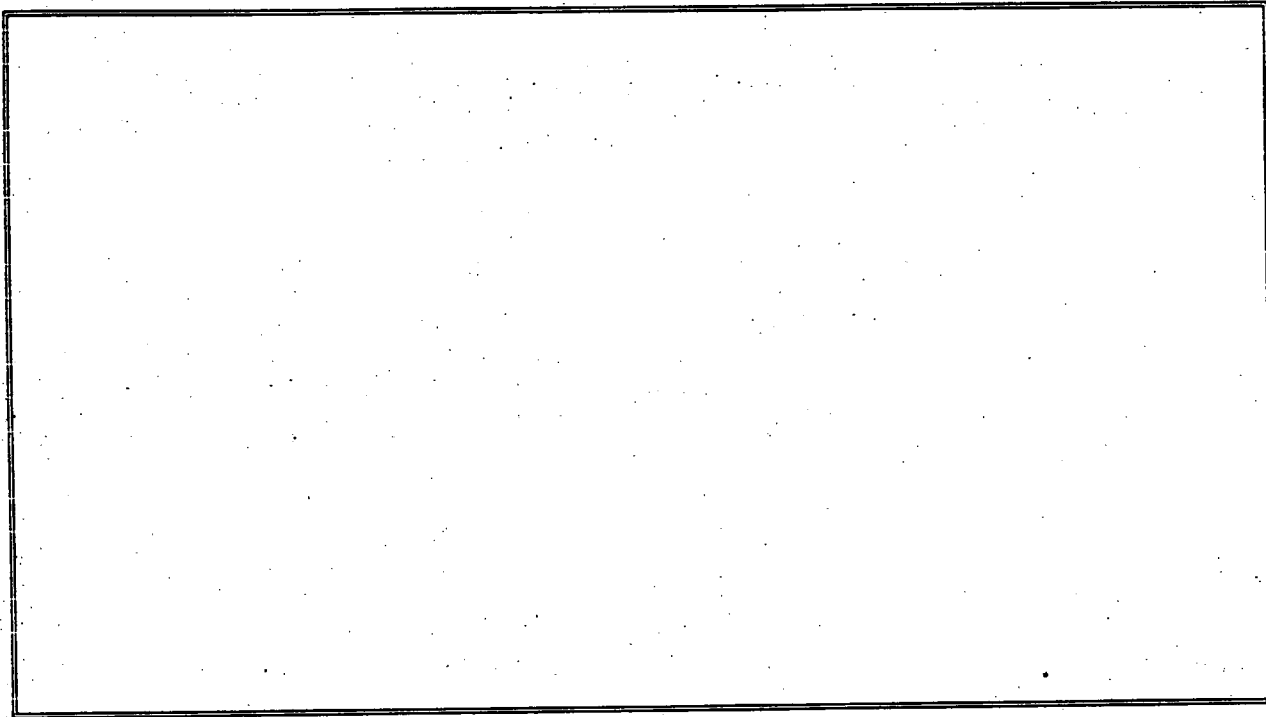
Drinking Water Threat Targets

TARGETS	Suspected Release	No Suspected Release	References
3. Determine the water body type, flow (if applicable), and number of people served by each drinking water intake.			
4. PRIMARY TARGET POPULATION 0 person(s)	0		
5. SECONDARY TARGET POPULATION Are any intakes part of a blended system? (y/n): N	0	0	
6. NEAREST INTAKE	0	0	
7. RESOURCES	5	0	
T =	5	0	

Drinking Water Threat Target Populations

Intake Name	Primary (y/n)	Water Body Type/Flow	Population Served	Ref.	Value
None					
Total Primary Target Population Value					0
Total Secondary Target Population Value					0

Apportionment Documentation for a Blended System



Human Food Chain Threat Targets

TARGETS	Suspected Release	No Suspected Release	References
8. Determine the water body type and flow for each fishery within the target limit.			
9. PRIMARY FISHERIES	0		
10. SECONDARY FISHERIES	210	0	
T =	210	0	

Human Food Chain Threat Targets

Fishery Name	Primary (y/n)	Water Body Type/Flow	Ref.	Value
1 BUSHKILL BROOK	N	10-100 cfs		30
2 SO. BRANCH RARITAN RIVER	N	>1000-10000 cfs		12
3 RARITAN RIVER	N	>1000-10000 cfs		12
Total Primary Fisheries Value				0
Total Secondary Fisheries Value				54

Environmental Threat Targets

TARGETS	Suspected Release	No Suspected Release	References
11. Determine the water body type and flow (if applicable) for each sensitive environment.			
12. PRIMARY SENSITIVE ENVIRONMENTS	0		
13. SECONDARY SENSITIVE ENVIRONS.	10	0	
T =	10	0	

Environmental Threat Targets

Sensitive Environment Name	Primary (y/n)	Water Body Type/Flow	Ref.	Value
1 SO.BRANCH RARITAN WETLAND	N	>1000-10000 cfs		12
Total Primary Sensitive Environments Value				0
Total Secondary Sensitive Environments Value				0

Surface Water Pathway Threat Scores

Threat	Likelihood of Release(LR) Score	Targets(T) Score	Pathway Waste Characteristics (WC) Score	Threat Score LR x T x WC / 82,500
Drinking Water	550	5	18	1
Human Food Chain	550	210	18	25
Environmental	550	10	18	1

SURFACE WATER PATHWAY SCORE:

27

Soil Exposure Pathway Criteria List
Resident Population

Is any residence, school, or daycare facility on or within 200 feet of an area of suspected contamination? (y/n/u) Y

Is any residence, school, or daycare facility located on adjacent land previously owned or leased by the site owner/operator? (y/n/u) N

Is there a migration route that might spread hazardous substances near residences, schools, or daycare facilities? (y/n/u) N

Have onsite or adjacent residents or students reported adverse health effects, exclusive of apparent drinking water or air contamination problems? (y/n/u) N

Does any neighboring property warrant sampling? (y/n/u) Y

Other criteria? (y/n) N

RESIDENT POPULATION IDENTIFIED? (y/n) Y

Summarize the rationale for Resident Population:

COPPER CONTAMINATION WAS DETECTED ON THE FARMHOUSE PROPERTY ADJACENT TO THE SITE. IT IS BELIEVED THAT THE CONTAMINATION IS DUE TO AIRBORNE PARTICULATES DEPOSITING ONTO THE PROPERTY.

SOIL EXPOSURE PATHWAY SCORESHEETS

Pathway Characteristics

	Ref.
Do any people live on or within 200 ft of areas of suspected contamination? (y/n) Yes	
Do any people attend school or daycare on or within 200 ft of areas of suspected contamination? (y/n) Yes	
Is the facility active? (y/n): Yes	

LIKELIHOOD OF EXPOSURE	Suspected Contamination	References
1. SUSPECTED CONTAMINATION LE =	550	

Targets

2. RESIDENT POPULATION 3 resident(s) 0 school/daycare student(s)	30	
3. RESIDENT INDIVIDUAL	50	
4. WORKERS 1 - 100	5	
5. TERRES. SENSITIVE ENVIRONMENTS	0	
6. RESOURCES	5	
T =	90	

WASTE CHARACTERISTICS

WC =

RESIDENT POPULATION THREAT SCORE:

NEARBY POPULATION THREAT SCORE:

Population Within 1 Mile: 1 - 10,000

SOIL EXPOSURE PATHWAY SCORE:

Soil Exposure Pathway Terrestrial Sensitive Environments

Terrestrial Sensitive Environment Name	Reference	Value
None		
Total Terrestrial Sensitive Environments Value		

Air Pathway Criteria List
Suspected Release

Are odors currently reported? (y/n/u)	N
Has release of a hazardous substance to the air been directly observed? (y/n/u)	Y
Are there reports of adverse health effects (e.g., headaches, nausea, dizziness) potentially resulting from migration of hazardous substances through the air? (y/n/u)	N
Does analytical/circumstantial evidence suggest release to air? (y/n/u)	Y
Other criteria? (y/n)	N

SUSPECTED RELEASE? (y/n) Y

Summarize the rationale for Suspected Release:

COPPER CONTAMINATION ON THE ADJACENT PROPERTY IS BELIEVED TO BE DUE
TO AIRBORNE PARTICULATES FROM THE SITE.

AIR PATHWAY SCORESHEETS

Pathway Characteristics

Do you suspect a release? (y/n)			Yes	Ref.
Distance to the nearest individual (feet):			400	
LIKELIHOOD OF RELEASE	Suspected Release	No Suspected Release	References	
1. SUSPECTED RELEASE	550			
2. NO SUSPECTED RELEASE		0		
LR =	550	0		

Targets

TARGETS	Suspected Release	No Suspected Release	References
3. PRIMARY TARGET POPULATION 35 person(s)	350		
4. SECONDARY TARGET POPULATION	12	0	
5. NEAREST INDIVIDUAL	50	0	
6. PRIMARY SENSITIVE ENVIRONS.	0		
7. SECONDARY SENSITIVE ENVIRONS.	0	0	
8. RESOURCES	5	0	
T =	417	0	

WASTE CHARACTERISTICS

WC =

32	0
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AIR PATHWAY SCORE:

89

Air Pathway Secondary Target Populations

Distance Categories	Population	References	Value
Onsite	N.A.		0
Greater than 0 to 1/4 mile	N.A.		0
Greater than 1/4 to 1/2 mile	312		3
Greater than 1/2 to 1 mile	2574		3
Greater than 1 to 2 miles	6562		3
Greater than 2 to 3 miles	5169		1
Greater than 3 to 4 miles	10576		2
Total Secondary Population Value			12

Air Pathway Primary Sensitive Environments

Sensitive Environment Name	Reference	Value
None		
Total Primary Sensitive Environments Value		

Air Pathway Secondary Sensitive Environments

Sensitive Environment Name	Distance	Reference	Value
None			
Total Secondary Sensitive Environments Value			

SITE SCORE CALCULATION	SCORE
GROUND WATER PATHWAY SCORE:	100
SURFACE WATER PATHWAY SCORE:	27
SOIL EXPOSURE PATHWAY SCORE:	12
AIR PATHWAY SCORE:	89
SITE SCORE:	69

SUMMARY

1. Is there a high possibility of a threat to any nearby drinking water well(s) by migration of a hazardous substance in ground water? Yes

If yes, identify the well(s).

THE NEIGHBORING FARMHOUSE WELL MAY NEED TO BE
SAMPLED.

If yes, how many people are served by the threatened well(s)? 3

2. Is there a high possibility of a threat to any of the following by hazardous substance migration in surface water?

- | | |
|--|----|
| A. Drinking water intake | No |
| B. Fishery | No |
| C. Sensitive environment (wetland, critical habitat, others) | No |

If yes, identify the target(s).

3. Is there a high possibility of an area of surficial contamination within 200 feet of any residence, school, or daycare facility? Yes

If yes, identify the properties and estimate the associated population(s)
THE ADJACENT FARMHOUSE IS ESTIMATED TO HAVE THREE
RESIDENTS.

4. Are there public health concerns at this site that are not addressed by PA scoring considerations? No

If yes, explain: